REMARKS

Applicant notes that this is the fourth non-final Office Action in the present application. At every rejection, Applicant has made the same or similar arguments. Applicant respectfully submits that the Examiner is citing cumulative art in a serial fashion, denying Applicant its ability to effectively and timely move this case toward allowance. In each rejection made previously in this application, including one rejection made, overcome, and then re-made in exactly the same wording, Applicant has been steadfast. The cited art does not teach or disclose the subject matter of the present claims. In no instance have any of the cited references contained the subject matter of the claims. This is continued yet again in the present office action.

Applicant offers the following general comments before reaching the specific merits of the latest rejections. The MPEP, at 903.04, indicates that searches and rejections should be made so as not to cite cumulative art:

> It is a prerequisite to a speedy and just determination of the issues involved in the examination of an application that a careful and comprehensive search, commensurate with the limitations appearing in the most detailed claims in the case, be made in preparing the first action on the merits so that the second action on the merits can be made final or the application allowed with no further searching other than to update the original search. It is normally not enough that references be selected to meet only the terms of the claims alone, especially if only broad claims are presented; but the search should, insofar as possible, also cover all subject matter which the examiner reasonably anticipates might be incorporated into applicant's amendment.
> ...
> In selecting the references to be cited, the examiner should carefully compare the references with one another and with the applicant's disclosure to avoid the citation of an unnecessary number. The examiner is not called upon to cite all references that may be available, but only the "best." (37 CFR 1.104(c).) *Multiplying references, any one of which is as good as, but no better than, the others, adds to the burden and cost of prosecution and should therefore be avoided.* The examiner must fully consider all the prior art references cited in the application, including those cited by the applicant in a properly submitted Information Disclosure Statement. (Emphasis added).

In the present application, the Examiner has continued to cite references that are at best cumulative to the previously cited references, and continues to present rejections and Office Actions that are exactly the same or very similar to those already presented, and on identical or cumulative art. Applicant is being burdened unnecessarily, both in cost and in time, as the clock on the term of a patent issuing on the present application continues to count down with each successive, repetitive, action, in contrast to the stated objectives and guidelines of MPEP 903.04.

Further, MPEP 706.07 indicates that the Applicant is entitled to a full and fair hearing on the subject matter, but that continued repetitive actions are to be avoided:

> To bring the prosecution to as speedy conclusion as possible and at the same time to deal justly by both the applicant and the public, the invention as disclosed and claimed should be thoroughly searched in the first action and the references fully applied; and in reply to this action the applicant should amend with a view to avoiding all the grounds of rejection and objection. *Switching* from one subject matter to another in the claims presented by applicant in successive amendments, or *from one set of references to another by the examiner in rejecting in successive actions claims of substantially the same subject matter, will alike tend to defeat attaining the goal of reaching a clearly defined issue for an early termination, i.e., either an allowance of the application or a final rejection.*
>
> ...
>
> The examiner should never lose sight of the fact that in every case the applicant is entitled to a full and fair hearing, and that a clear issue between applicant and examiner should be developed, if possible, before appeal. *However, it is to the interest of the applicants as a class as well as to that of the public that prosecution of an application be confined to as few actions as is consistent with a thorough consideration of its merits.* (Emphasis added).

In the present application, the Examiner is bouncing from one set of references to another, and in some instances to exactly the same rejection of exactly the same un-amended claims (see first and third office actions in the present application), while the claims remain nearly identical and un-amended, or only amended very slightly. The successive repetitive Office Actions are defeating the goals of MPEP 706.07, and indeed of the patent system itself, by forcing Applicant to continue to expend time and money that it should not have to spend. As MPEP 706.07 states, it is in the interests of applicants as well as the public that prosecution moves forward.

Claims 1-44 remain for consideration in this application.

Claim Rejections Under 35 U.S.C. § 102

Claims 1, 4-5, 16, 22-23, 27, and 30-31 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ingalls (U.S. Patent No. 5,978,297). Applicant strongly traverses this rejection, and submits that the Examiner is fundamentally misinterpreting the reference.

Each of claims 1, 4, 16, 22, 27, and 30 either recite defining the number of banks or configuring the banks of the array. This is not done in Ingalls. The Examiner has failed to show anywhere in Ingalls the configuration of the banks or the defining of the number of banks by the mode register. In fact, a program state of the mode register is never mentioned in Ingalls. Still

further, there is no disclosure in Ingalls of any re-configuration of the banks as is recited in the claims. No multiple states of the mode register are shown or discussed.

Ingalls does not allow for a configuration and reconfiguration of the banks into a different number of banks depending upon the program state of the mode register as is recited by the independent claims of the present application. Mode register 69 of Ingalls is not identified as anything that configures the addressable banks in response to a program state of the mode register. There is no configuration of banks in response to a program state of the mode register in Ingalls. Further, the Examiner cites no specific text to indicate where in Ingalls such a teaching or disclosure is made. This is because there is no such disclosure or teaching in Ingalls. In fact, the cited sections of Ingalls for the rejection of claim 1 never discuss at all the functions of the mode register. Still further, it is clear from a reading of Ingalls that nowhere in Ingalls is there any provision or thought of having the array re-configured "on the fly" to a different number of banks, as is recited in the present claims. Applicant respectfully submits that Ingalls does not contain each and every element of the claims.

Simply having a memory array that can be replaced with a different memory array in another circuit, the two separate circuits embodying the same other structure but having a different number of banks is NOT what the present claims recite. The present claims recite a single memory device or array that is reconfigurable to have a different number of banks using the exact same cells, not the ability to operate or have a different structure, but actually allowing for the reconfiguration of the same array into a different number of banks.

With respect to claim 1, column 2 lines 50-56 and column 5, lines 13-20 of Ingalls do not teach or discuss configuration of the banks in response to a mode register signal. Claim 1 is allowable.

With respect to claim 4, the Examiner's assertion that col. 1, lines 1-32 and 47-57 shows multiple mode register states is incorrect. There is no mention of any configuration of the banks in that section of Ingalls.

With respect to claims 16, 22, 27, and 30, Ingalls once again does not shown what the Examiner asserts it shows, as has been discussed above with respect to claim 1.

The remaining claims 5, 23, and 31 depend from and further define one of patentably distinct claims 4, 22, or 30 and are also believed allowable.

Claims 1-44 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ooishi (U.S. Patent No. 6,084,818). Applicant strongly traverses this rejection, and submits that the Examiner is fundamentally misinterpreting the reference.

Ooishi does not contain any teaching or disclosure as recited in the present claims. With respect to claims 1, 4, 16, 22, 27, 30, 38, and 42, the section of Ooishi asserted to provide mode register configuration of the banks (column 5, line 46 through column 6, line 11) does not contain any mention whatsoever of configuring the banks in response to a program state of the mode register. Still further, the assertion of the Examiner that column 6, lines 19-44 teach the configuration of the addressable banks as either four or eight banks is also unsupported. Instead, Ooishi describes a memory in which an entirely different array with a different number of banks can be substituted for the array described. This differs fundamentally from the present claims which recite re-configuration of the same array into a different number of banks in response to a program state of the mode register. Simply having an ability to have a different array with a different number of banks does not teach or disclose the re-configuration of the number of banks on the fly as is recited in the present claims.

With respect to claims 9, 12, and 35, the exact same section of Ooishi (column 5, line 46 through column 6, line 11) is cited for supporting not only reconfiguration of the banks on the fly, which has been shown to be incorrect in the preceding paragraph, but also for routing to a row or bank address counter in response to the data stored in the mode register. Nowhere in the cited section of Ooishi is a mode register even mentioned.

Claims 1, 4, 9, 12, 16, 22, 27, 30, 35, 38, and 42 are allowable. Claims 2-3, 5-8, 10-11, 13-15, 17-21, 23-26, 28-29, 31-34, 36-37, 39-41, and 43-44 depend from and further define one of patentably distinct claims 1, 4, 9, 12, 16, 22, 27, 30, 35, 38, or 42, and are also believed allowable.

CONCLUSION

In view of the above remarks, Applicant believes that all pending claims are in condition for allowance and respectfully requests a Notice of Allowance be issued in this case. Prosecution is not being advanced by the repetitive and cumulative citing of references that merely recite the same or similar rejections on identical subject matter as previous Office Actions.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2203.

Respectfully submitted,

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